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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/943,283	08/30/2001	Douglas A. Spencer	499058-A-01-US (Spencer)	8771
47523	7590	03/24/2005	EXAMINER	
JOHN C. MORAN, ATTORNEY, P.C. 4120 EAST 115 PLACE THORNTON, CO 80233-2623			DAVIS, CYNTHIA L	
			ART UNIT	PAPER NUMBER
			2665	

DATE MAILED: 03/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/943,283

Applicant(s)

SPENCER, DOUGLAS A.

Examiner

Cynthia L Davis

Art Unit

2665

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-53 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-53 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>1/16/2002</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1, 3, 5, 7, 9, 11, 13-14, 16-19, 32, 34, 36, 38, and 40 are rejected under 35 U.S.C. 102(e) as being anticipated by Ash.

Regarding claim 1, receiving by one of the plurality of local telecommunication switches a call setup message from one of a first plurality of telephone sets connected to one of a first plurality of local exchange carriers with a first trunk circuit interconnecting the one of the plurality of local telecommunication switches with the one of the first plurality of local exchange carriers, determining by the one of the plurality of local telecommunication switches that the call setup message designates one of a second plurality of telephone sets connected to one of a second plurality of local exchange carriers as a destination of the call setup message; determining by the one of the plurality of local telecommunication switches in response to the call setup message that a first one of a first plurality of local telephone switching offices of the one of the first plurality of local exchange carriers to which the one of the first plurality of telephone sets is connected requires echo cancellation operations; and providing by the one of the plurality of local telecommunication switches in response to the determination that echo cancellation operations are required for the first one of the first plurality of local

telephone switching offices echo cancellation operations for a first call path from the one of the plurality of local telecommunication switches to the first one of the first plurality of the local telephone switching offices of the first one of the plurality of local exchange carriers is disclosed in Ash, figure 1 (showing a typical telecommunications system that contains trunks and would receive calls) and column 4, lines 42-43 (disclosing echo cancellation capability in the trunks).

Regarding claims 3, 14, and 34, verifying that the first trunk circuit has echo cancellation capabilities; activating the first trunk circuit to provide echo cancellation operations on the first call path is disclosed in Ash, column 4, lines 33-43 (disclosing activating of echo cancellation in the chosen trunk if necessary).

Regarding claims 5, 16, and 36, the one of the plurality of local telecommunication switches comprises a switching network to which the first trunk circuit, a second trunk circuit, and a third trunk circuit are connected where the third trunk circuit is part of a second call path from the one of the plurality of local telecommunication switches to the first one of the second plurality of local telephone switching offices of the one of the second plurality of local exchange carriers and the step of providing comprises the steps of verifying that the second trunk circuit has echo cancellation capabilities, establishing an internal path from the first and second call paths through the first trunk circuit, switching network, second trunk circuit, switching network and third trunk circuit; and enabling the second trunk circuit to provide echo cancellation operations on audio information coming from the third trunk circuit is

Art Unit: 2665

disclosed in Ash, column 4, lines 33-43 (disclosing a plurality of interconnected trunk circuits on the network, and activation of echo cancellation if necessary).

Regarding claims 7, 17, and 38, one of the plurality of local telecommunication switches comprises a switching network to which the first trunk circuit and a second trunk circuit are connected where the second trunk circuit is part of a second call path from the one of the plurality of local telecommunication switches to the first one of the second plurality of local telephone switching offices of the one of the second plurality of local exchange carriers and the step of providing comprises the steps of verifying that the second trunk circuit has echo cancellation capabilities, establishing an internal path from the first and second call paths through the first trunk circuit, switching network and a second trunk circuit; and enabling the second trunk circuit to provide echo cancellation operations on audio information coming from the first trunk circuit is disclosed in Ash, column 4, lines 33-43 (disclosing a plurality of interconnected trunk circuits on the network, and activation of echo cancellation if necessary).

Regarding claims 9, 18, and 40, the one of the plurality of local telecommunication switches comprises a switching network to which the first trunk circuit, a second trunk circuit, and a third trunk circuit are connected where the third trunk circuit is part of a second call path from the one of the plurality of local telecommunication switches to the first one of the second plurality of local telephone switching offices of the one of the second plurality of local exchange carriers and the step of providing comprises the steps of verifying that the second trunk circuit has echo cancellation capabilities, establishing an internal path from the first and second call

Art Unit: 2665

paths through the first trunk circuit, switching network, second trunk circuit, switching network and third trunk circuit, enabling the second trunk circuit to provide echo cancellation operations on audio information coming from the first trunk circuit, determining by the one of the plurality of local telecommunication switches in response to the call setup message that a first one of the plurality of local telephone switching offices of the one of the second plurality of local exchange carriers to which the one of the second plurality of telephone sets is connected requires echo cancellation operations, and enabling the third trunk circuit to provide echo cancellation operations on audio information coming from the second call path is disclosed in Ash, column 4, lines 33-43 (disclosing a plurality of interconnected trunk circuits on the network, and activation of echo cancellation if necessary).

Regarding claims 11 and 19, one of the plurality of local telecommunication switches comprises a switching network to which the first trunk circuit and a second trunk circuit are connected where the second trunk circuit is part of a second call path from the one of the plurality of local telecommunication switches to the first one of the second plurality of local telephone switching offices of the one of the second plurality of local exchange carriers and the step of providing comprises the steps of verifying that the second trunk circuit has echo cancellation capabilities, establishing an internal path from the first and second call paths through the first trunk circuit, switching network, and second trunk circuit, enabling the first trunk circuit to provide echo cancellation operations on audio information coming from the first call path; determining by the one of the plurality of local telecommunication switches in response to the call setup

Art Unit: 2665

message that the first one of the second plurality of local telephone switching offices of the one of the second plurality of local exchange carriers to which the one of the second plurality of telephone sets is connected requires echo cancellation operations, and enabling the second trunk circuit to provide echo cancellation operations on audio information coming from the second call path is disclosed in Ash, column 4, lines 33-43 (disclosing a plurality of interconnected trunk circuits on the network, and activation of echo cancellation if necessary).

Regarding claim 13, receiving by one of the plurality of local telecommunication switches a call setup message from one of a first plurality of telephone sets connected to one of a first plurality of local exchange carriers via the third plurality of local exchange carriers and the second one of the plurality of local telecommunication switches and a first trunk circuit interconnecting the first one of the plurality of local telecommunication switches with the third one of the plurality of local exchange carriers, determining by the first one of the plurality of local telecommunication switches that the call setup message designates one of a second plurality of telephone sets connected to one of a second plurality of local telephone switching offices of one of a second plurality of local exchange carriers as a destination of the call setup message; determining by the first one of the plurality of local telecommunication switches in response to the call setup message that a first one of a first plurality of local telephone switching offices of the one of the first plurality of local exchange carriers to which the one of the first plurality of telephone sets is connected requires echo cancellation operations; and providing by the first one of the plurality of local telecommunication switches in

response to the determination that echo cancellation operations are required for the first one of the first plurality of local telephone switching offices echo cancellation operations for a first call path from the first one of the plurality of local telecommunication switches to the first one of the first plurality of the local telephone switching offices of the first one of the plurality of local exchange carriers is disclosed in Ash, figure 1 (showing a typical telecommunications system that contains trunks and would receive calls) and column 4, lines 42-43 (disclosing echo cancellation capability in the trunks).

Regarding claim 32, means for receiving by one of the plurality of local telecommunication switches a call setup message from one of a first plurality of telephone sets connected to one of a first plurality of local exchange carriers with a first trunk circuit interconnecting the one of the plurality of local telecommunication switches with the one of the first plurality of local exchange carriers, means for determining by the one of the plurality of local telecommunication switches that the call setup message designates one of a second plurality of telephone sets connected to one of a second plurality of local exchange carriers as a destination of the call setup message, means for determining by the one of the plurality of local telecommunication switches in response to the call setup message that a first one of a first plurality of local telephone switching offices of the one of the first plurality of local exchange carriers to which the one of the first plurality of telephone sets is connected requires echo cancellation operations, and means for providing by the one of the plurality of local telecommunication switches in response to the determination that echo cancellation operations are required for the first one of the first plurality of local telephone switching

offices echo cancellation operations for a first call path from the one of the plurality of local telecommunication switches to the first one of the first plurality of the local telephone switching offices of the first one of the plurality of local exchange carriers is disclosed in Ash, figure 1 (showing a typical telecommunications system that contains trunks and would receive calls) and column 4, lines 42-43 (disclosing echo cancellation capability in the trunks).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 2, 4, 6, 8, 10, 12, 15, 20-31, 33, 35, 37, 39, and 41-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ash in view of Bist.

Regarding claims 2, 15, and 33, adjusting the echo cancellation capabilities of the first trunk circuit with respect to an echo tail length for the first call path is missing from Ash. However, this is disclosed in column 36, lines 60-61 of Bist (disclosing a echo canceller that is referred to as a long tail echo canceller). It would have been obvious to one skilled in the art at the time of the invention to base the echo cancellation on the tail length. The motivation would be to remove the source of the echo.

Regarding claims 4 and 35, adjusting the echo cancellation capabilities of the first trunk circuit with respect to an echo tail length for the first call path is missing from Ash. However, this is disclosed in column 36, lines 60-61 of Bist (disclosing a echo

Art Unit: 2665

canceller that is referred to as a long tail echo canceller). It would have been obvious to one skilled in the art at the time of the invention to base the echo cancellation on the tail length. The motivation would be to remove the source of the echo.

Regarding claims 6 and 37, adjusting the echo cancellation capabilities of the second trunk circuit with respect to an echo tail length for the second call path is missing from Ash. However, this is disclosed in column 36, lines 60-61 of Bist (disclosing a echo canceller that is referred to as a long tail echo canceller). It would have been obvious to one skilled in the art at the time of the invention to base the echo cancellation on the tail length. The motivation would be to remove the source of the echo.

Regarding claims 8 and 39, adjusting the echo cancellation capabilities of the first trunk circuit with respect to an echo tail length for the first call path is missing from Ash. However, this is disclosed in column 36, lines 60-61 of Bist (disclosing a echo canceller that is referred to as a long tail echo canceller). It would have been obvious to one skilled in the art at the time of the invention to base the echo cancellation on the tail length. The motivation would be to remove the source of the echo.

Regarding claims 10 and 41, adjusting the echo cancellation capabilities of the third trunk circuit with respect to an echo tail length for the second call path is missing from Ash. However, this is disclosed in column 36, lines 60-61 of Bist (disclosing a echo canceller that is referred to as a long tail echo canceller). It would have been obvious to one skilled in the art at the time of the invention to base the echo cancellation on the tail length. The motivation would be to remove the source of the echo.

Regarding claim 12, adjusting the echo cancellation capabilities of the second trunk circuit with respect to an echo tail length for the second call path is missing from Ash. However, this is disclosed in column 36, lines 60-61 of Bist (disclosing a echo canceller that is referred to as a long tail echo canceller). It would have been obvious to one skilled in the art at the time of the invention to base the echo cancellation on the tail length. The motivation would be to remove the source of the echo.

Regarding claim 20, a method for controlling echoes within a telecommunication switching system having a plurality of local exchange carriers, a wide area network, pluralities of softphones, a plurality of remote switches, and a plurality of local telecommunication switches where each of the plurality of local exchange carriers is connected to a plurality of telephone sets attached to a plurality of local telephone switching offices of each of the plurality of local exchange carriers and each of the plurality of local telecommunication switches is connected to a plurality of telephone sets and each of the plurality of remote switches is connected to a first plurality of softphones, comprising the steps of: connecting the plurality of remote switches to each of the plurality of local telecommunication switches via the wide area network; providing echo cancellation circuits in each of the plurality of remote switches with each echo cancellation circuit having an echo tail length adjusted to eliminate an echo produced by each of the first plurality of softphones; connecting each of a second plurality of softphones to each of the plurality of local telecommunication switches via the wide area network; providing an echo cancellation circuit in each of the second plurality of softphones to eliminate an echo produced by each of the second plurality of softphones,

Art Unit: 2665

connecting one of the plurality of local exchange carriers to the wide area network via one of the plurality of local telecommunication switches with the one of the plurality of local exchange carriers interconnected to the one of the plurality of local telecommunication switches by a plurality of trunk circuits in the one of the plurality of local telecommunication switches; and providing echo cancellation operations in each of the plurality of trunk circuits adjusted to eliminate echoes produced by the one of the plurality of local exchange carriers on an individual call path basis is disclosed in Ash, figure 1 (showing a typical telecommunications system that contains trunks and would receive calls) and column 4, lines 42-43 (disclosing echo cancellation capability in the trunks on a per call basis). Having an echo tail length adjusted is missing from Ash. However, this is disclosed in column 36, lines 60-61 of Bist (disclosing a echo canceller that is referred to as a long tail echo canceller). It would have been obvious to one skilled in the art at the time of the invention to base the echo cancellation on the tail length. The motivation would be to remove the source of the echo.

Regarding claims 21 and 43, determining by the one of the plurality of local telecommunication switches that a call setup message received from the one of the plurality of local exchange carriers via one of the plurality of trunk circuits designates one of the first plurality of softphones connected to the one of the plurality of the local exchange carriers, determining by the one of the plurality of local telecommunication switches in response to the call setup message that a first one of a plurality of local telephone switching offices of the one of the first plurality of local exchange carriers to which the one of the plurality of telephone sets is connected requires echo cancellation

Art Unit: 2665

operations, and enabling the one of the plurality of trunk circuits to provide an echo cancellation operation for a telephone call associated with the call setup message is disclosed in Ash, column 4, lines 33-43 (disclosing a plurality of interconnected trunk circuits on the network, and activation of echo cancellation if necessary).

Regarding claims 22 and 44, adjusting the echo cancellation capabilities of the one of the plurality of trunk circuits with respect to an echo tail length for the first call path is missing from Ash. However, this is disclosed in column 36, lines 60-61 of Bist (disclosing a echo canceller that is referred to as a long tail echo canceller). It would have been obvious to one skilled in the art at the time of the invention to base the echo cancellation on the tail length. The motivation would be to remove the source of the echo.

Regarding claims 23 and 45, the one of the plurality of local telecommunication switches is connected to the wide area network by a Internet Protocol trunk circuit and the step of providing the echo cancellation operation further comprises providing an additional echo cancellation operation in the Internet Protocol trunk circuit is missing from Ash. However, Bist discloses in column 36, lines 60-61, and column 10, line 58, echo cancellation in an IP network. It would have been obvious to one skilled in the art at the time of the invention to connect to the WAN using an IP trunk and provide echo cancellation on the trunk. The motivation would be to provide echo-free calling on a common type of connection.

Regarding claims 24 and 46, the one of the plurality of local telecommunication switches is connected to the wide area network by a trunk circuit and the step of

Art Unit: 2665

providing echo cancellation operation in the trunk circuit comprises the steps of determining by the one of the plurality of local telecommunication switches that a call setup message received from the one of the plurality of local exchange carriers via one of the plurality of trunk circuits designates one of the first plurality of softphones connected to the one of the plurality of the local exchange carriers, determining by the one of the plurality of local telecommunication switches in response to the call setup message that a first one of a plurality of local telephone switching offices of the one of the first plurality of local exchange carriers to which the one of the plurality of telephone sets is connected requires echo cancellation operations, and enabling the trunk circuit to provide an echo cancellation operation for a telephone call associated with the call setup message is disclosed in Ash, column 4, lines 33-43 (disclosing a plurality of interconnected trunk circuits on the network, and activation of echo cancellation if necessary). However, that the trunk is an IP trunk is missing from Ash. Bist discloses in column 36, lines 60-61, and column 10, line 58, echo cancellation in an IP network. It would have been obvious to one skilled in the art at the time of the invention to connect to the WAN using an IP trunk and provide echo cancellation on the trunk. The motivation would be to provide echo-free calling on a common type of connection.

Regarding claims 25 and 47, adjusting the echo cancellation capabilities of the Internet Protocol trunk circuit with respect to an echo tail length for the first call path is missing from Ash. However, this is disclosed in column 36, lines 60-61 of Bist (disclosing a echo canceller that is referred to as a long tail echo canceller). It would have been obvious to one skilled in the art at the time of the invention to base the echo

Art Unit: 2665

cancellation on the tail length. The motivation would be to remove the source of the echo.

Regarding claims 26 and 48, providing an additional echo cancellation operation in the one of the plurality of trunk circuits is disclosed in Ash, column 4, lines 42-43 (disclosing echo cancellation capability in the trunks).

Regarding claims 27 and 49, adjusting the echo cancellation capabilities of the one of the plurality of trunk circuits is disclosed in Ash, column 4, lines 42-43 (disclosing echo cancellation capability in the trunks).

Regarding claims 28 and 50, the one of the plurality of local telecommunication switches is connected to the wide area network by a trunk circuit and the step of providing echo cancellation operation in the trunk circuit comprises the steps of further determining by the one of the plurality of local telecommunication switches that another call setup message received from the one of the plurality of local exchange carriers via one of the plurality of trunk circuits designates one of the second plurality of softphones connected to the one of the plurality of the local exchange carriers; determining by the one of the plurality of local telecommunication switches in response to the call setup message that a first one of a plurality of local telephone switching offices of the one of the first plurality of local exchange carriers to which the one of the plurality of telephone sets is connected requires echo cancellation operations; and enabling the trunk circuit to provide an echo cancellation operation for a telephone call associated with the other call setup message is disclosed in Ash, column 4, lines 33-43 (disclosing a plurality of interconnected trunk circuits on the network, and activation of echo cancellation if

Art Unit: 2665

necessary). However, that the trunk is an IP trunk is missing from Ash. Bist discloses in column 36, lines 60-61, and column 10, line 58, echo cancellation in an IP network. It would have been obvious to one skilled in the art at the time of the invention to connect to the WAN using an IP trunk and provide echo cancellation on the trunk. The motivation would be to provide echo-free calling on a common type of connection.

Regarding claims 29 and 51, adjusting the echo cancellation capabilities of the Internet Protocol trunk circuit with respect to an echo tail length for the first call path is missing from Ash. However, this is disclosed in column 36, lines 60-61 of Bist (disclosing a echo canceller that is referred to as a long tail echo canceller). It would have been obvious to one skilled in the art at the time of the invention to base the echo cancellation on the tail length. The motivation would be to remove the source of the echo.

Regarding claims 30 and 52, providing an additional echo cancellation operation in the one of the plurality of trunk circuits is disclosed in Ash, column 4, lines 42-43 (disclosing echo cancellation capability in the trunks).

Regarding claims 31 and 53, adjusting the echo cancellation capabilities of the one of the plurality of trunk circuits is disclosed in Ash, column 4, lines 42-43 (disclosing echo cancellation capability in the trunks).

Regarding claim 42, an apparatus for controlling echoes within a telecommunication switching system having a plurality of local exchange carriers, a wide area network, pluralities of softphones, a plurality of remote switches, and a plurality of local telecommunication switches where each of the plurality of local

Art Unit: 2665

exchange carriers is connected to a plurality of telephone sets attached to a plurality of local telephone switching offices of each of the plurality of local exchange carriers and each of the plurality of local telecommunication switches is connected to a plurality of telephone sets and each of the plurality of remote switches is connected to a first plurality of softphones, comprising: means for connecting the plurality of remote switches to each of the plurality of local telecommunication switches via the wide area network, means for providing echo cancellation circuits in each of the plurality of remote switches with each echo cancellation circuit having an echo tail length adjusted to eliminate an echo produced by each of the first plurality of softphones, means for connecting each of a second plurality of softphones to each of the plurality of local telecommunication switches via the wide area network, means for providing an echo cancellation circuit in each of the second plurality of softphones eliminating an echo produced by each of the second plurality of softphones, means for connecting one of the plurality of local exchange carriers to the wide area network via one of the plurality of local telecommunication switches with the one of the plurality of local exchange carriers interconnected to the one of the plurality of local telecommunication switches by a plurality of trunk circuits in the one of the plurality of local telecommunication switches, and means for providing echo cancellation operations in each of the plurality of trunk circuits adjusted to eliminate echoes produced by the one of the plurality of local exchange carriers on an individual call path basis is disclosed in Ash, figure 1 (showing a typical telecommunications system that contains trunks and would receive calls) and column 4, lines 42-43 (disclosing echo cancellation capability in the trunks on a per call

Art Unit: 2665

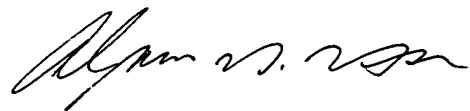
basis). Having an echo tail length adjusted is missing from Ash. However, this is disclosed in column 36, lines 60-61 of Bist (disclosing a echo canceller that is referred to as a long tail echo canceller). It would have been obvious to one skilled in the art at the time of the invention to base the echo cancellation on the tail length. The motivation would be to remove the source of the echo.

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cynthia L Davis whose telephone number is (571) 272-3117. The examiner can normally be reached on 8:30 to 6, Monday to Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CLD
3/1/2005



ALPUS H. HSU
PRIMARY EXAMINER